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Mid-Rise Shear Walls and Diaphragms



WoodWorks[™]

WOOD PRODUCTS COUNCIL

Tuesday, August 9 • Nashville, TN
Wednesday, August 10 • Atlanta, GA
Thursday, August 11 • Charlotte, NC

Register at woodworks.org

Mid-Rise Shear Walls and Diaphragms

Terry Malone, PE, SE, Senior Technical Director, WoodWorks

COURSE DESCRIPTION

Intended for structural engineers or architects who would like a deeper understanding of advanced shear wall and diaphragm principles, this presentation will provide an in-depth look at wood-frame shear wall designs commonly used for non-residential and multi-family low-rise and mid-rise buildings, including those with rectangular, offset and open-front plans. Topics will also include: a brief discussion on diaphragm irregularities and the detailing required to maintain continuous load paths across areas of discontinuity; a review of the new 2015 *Special Design Provisions for Wind and Seismic* (SDPWS) requirements for shear walls; a new method of analysis for a shear wall with Force Transfer Around an Opening (FTAO); and available methods to analyze tall shear walls in mid-rise structures and determine their effect on the horizontal distribution of shears through the diaphragm and shear walls.



Photo credits: (front and address panel) Haven at Avalon, Dwell Design Studio, photo Dwell Design Studio, (front left) Arcadia Student Living, Miller Architecture, Tim Buchman Photography, (inside left) Spartan Village, UNC Greensboro, Lord Aeck & Sargent Architecture, Mark Herboth Photography, (inside right) Arch Wood Protection

Terry Malone is a licensed structural engineer in Washington, Oregon and Arizona. Prior to joining WoodWorks, he was a principal of consulting structural engineering firms in Washington and Oregon, conducted third-party structural plan reviews and served as a faculty member at St. Martin's College in Lacey, Washington. Terry has over 35 years of wood design experience and has taken an active role as a presenter, providing seminars at state and local International Code Council (ICC) chapters and professional engineering organizations. Terry is author of *The Analysis of Irregular Shaped Structures: Diaphragms and Shear Walls*, published by McGraw-Hill and the ICC. He is a member of the Structural Engineers' Association of Arizona and the ICC.

Agenda

7:30 – 8:00 a.m.	Check-in / Registration
8:00 – 8:15 a.m.	Welcome and Introduction
8:15 – 9:15 a.m.	Part I: Types of shear walls and new FTAO wall analysis
9:15 – 9:45 a.m.	BREAK
9:45 – 10:45 a.m.	Part II: Anchorage and new 2015 SDPWS code requirements
10:45 – 11:00 a.m.	BREAK
11:00 – 12:00 p.m.	Part III: Continuous load paths
12:00 – 12:45 p.m.	LUNCH
12:45 – 1:45 p.m.	Part IV: Mid-rise diaphragms and tall shear walls
1:45 p.m.	Closing / Certificates

Content Rating

Technical engineering content: 1 (low) to 5 (high)



Architectural-focused content: 1 (low) to 5 (high)



About WoodWorks

Free design and engineering support for wood buildings

WoodWorks provides free resources related to the design, engineering and construction of non-residential and multi-family wood buildings. Our objective is to make it easier to build code-compliant wood buildings more efficiently and at less cost.

For project assistance please contact:

Bruce Lindsey

Southeast Regional Director

Tel: 704.825.6163

Email: bruce@woodworks.org

Visit woodworks.org or email help@woodworks.org



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Time and Place

On-site check-in will open at 7:30 a.m.
Program will begin at 8:00 a.m. and the
day will conclude at 1:45 p.m.

Tuesday, August 9 • Nashville, TN

Maggiano's at West End Avenue
3106 W End Avenue
Nashville, TN 37203

Wednesday, August 10 • Atlanta, GA

Maggiano's at Buckhead
3368 Peachtree Road NE
Atlanta, GA 30326

Thursday, August 11 • Charlotte, NC

Maggiano's at South Park Mall
4400 Sharon Road
Charlotte, NC 28211

Educational Credits

4.0 AIA/CES LUs (HSW) or PDH credits

Fee

\$40 (includes lunch)



*WoodWorks is an
approved AIA provider.*



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